

## **REMARKS / DISCUSSION OF ISSUES**

The present amendment is submitted in response to the Non-Final Office Action mailed November 9, 2009. In view of the amendments above and the remarks to follow, reconsideration and allowance of this application are respectfully requested.

### ***Status of the Claims***

Upon entry of the present amendment, claims 1-23 will remain pending in this application. Claims 1 and 18 have been amended. Applicants respectfully submit that no new matter is added by the present amendments.

### ***Drawing Objection***

In the Office Action, the drawings were objected to for failing to comply with 37 CFR 1.121(d) because Figs 3-8 should be designated by a legend such as –Prior Art--. Applicants respectfully request withdrawal of the drawings objection and approval of the enclosed proposed drawing change including a proper labeling of FIGS. 3-8.

### ***Objection to the Specification***

In the Office Action, the disclosure is objected to because the specification fails to explain how transistor (34) is driven in Fig. 4 and fails to identify the two dark blocks above and left of block 84 in Fig. 8. Applicants note that Fig. 4 is missing a gate line on transistor 34. In response, Applicants have included a proposed drawing change to Fig. 4 that adds a gate line similar to the unnumbered transistor in Fig. 4. The two transistors are connected to gate lines that run across the whole array and are driven by external row drivers. The two dark blocks are intended to show the top metal contact of the diode. Similar boxes are shown on the drain and source of the transistor.

### ***Rejections under 35 U.S.C. §112, second paragraph***

Claims 7, 9-14, and 18-20 stand rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection of claim 7 is understood to be based on the premise that the limitation, “a first angle” does not include an explanation as to what the first angle represents or if it is a first angle to the normal or what reference points it’s based off of, making the claim indefinite. Applicants note that the “first angle” stands for the greatest angle, with respect to the normal to the LED, at which light can leave the LED device and be seen by the viewer. Light at angles greater than the “first angle” are totally internally reflected and remain within the LED. Near the edge of the LED light emitted at an angle greater than this first angle is then able to fall upon a strategically positioned sensor.

The rejection of claims 9-11, 14, 19 and 20 is understood to be based on the premise that “printing dams” is not clearly defined in either the claims or the specification. Therefore it is unclear what the Applicant is claiming by using that limitation. Applicants note that the term “printing dams” is specific to polymer OLED devices which are in a liquid state when printed onto the display substrate, therefore the different colors need a physical barrier to prevent them from mixing, hence the term “printing dam”. Applicants suggest that the term may be changed to “color separation dams” to be inclusive of standard OLED devices, i.e., to separate the individual RGB OLED devices. Fig. 13 (78) of Applicant’s specification illustrates these “printing dams” and they are described in the specification at least on page 15, line 22.

The rejection of claim 12 is understood to be based on the limitation “lower resistance” does not state what it is lower than, and is therefore unclear. Applicants note that the transparent materials, such as ITO, have a high resistivity, e.g., between 10 and 100 ohms/square. Envisaged metals for use as a shunt are contemplated to have a resistivity of 0.1 ohms/square or less.

The rejection of claim 18 is understood to be based on the limitation “reflecting layer” which is unclear because two reflecting layers have been described in claims 16 and 17 and it is unclear which layer claim 18 is referring to. In response, Applicants have amended claim 18 to more clearly and precisely recite that the reflecting layer of claim 18 refers to the reflecting layer (102;110) recited in claim 17.

***Claim Rejections under 35 USC 102***

In the Office Action, Claims 1-3 and 23 stand rejected under 35 U.S.C. §102 (b) as being anticipated by U.S. Patent Application No. 2003 / 0047736 (“Hayashi”). Applicants respectfully traverse the rejections.

***Claims 1-3 and 23 are allowable***

Independent Claim 1 has been amended herein to better define Applicant’s invention over Hayashi. Claim 1 now recites limitations and/or features which are not disclosed by Hayashi. Therefore, the cited portions of Hayashi do not anticipate claim 1, because the cited portions of Hayashi do not teach every element of claim 1. For example, the cited portions of Hayashi do not disclose or suggest, *“a light-dependent device (90) located laterally outside of the area of the light emitting material (76) for detecting the brightness of the display element (2)”*, as recited in claim 1. In contrast to claim 1, Hayashi describes a light emitting system comprising a lower electrode 13 is formed on a substrate 10, and a light emitting material layer 12 is formed on the lower electrode 13. An upper electrode 11 is formed on the light emitting material layer 12, so that a light emitting element 4 is constituted. **A light sensor 1 is provided on the light emitting element 4.** See Hayashi, pars. 73–75. The light emitting element 4 emits the light in an upper direction in the drawing, and a portion of the light thus emitted is inputted to the light sensor 1 (i.e., aka the light dependent device of the invention). See Hayashi, par. 76.

It is respectfully submitted that Fig. 1 of Hayashi **does not show**, nor is there any teaching or suggestion in Hayashi at pars. 73-78 regarding *“a light-dependent device (90) located laterally outside of the area of the light emitting material (76) for detecting the brightness of the display element (2)”*, as recited in claim 1. Instead, Hayashi teaches that the light sensor 1 is provided **on** top of the light emitting element 4. See Hayashi, Par. 74, repeated below.

[0074] In the shown structure, a lower electrode 13 is formed on a substrate 10, and a light emitting material layer 12 is formed on the lower electrode 13, and further, an upper electrode 11 is formed on the light emitting material layer 12, so that a light

emitting element 4 is constituted. In addition, **a light sensor 1 is provided on the light emitting element 4.** [Emphasis Added]

Hence claim 1 is allowable. Claims 2-3 and 23 depend from independent Claim 1, which Applicants have shown to be allowable. Accordingly, claims 2-3 and 23 are also allowable, at least by virtue of their dependency from claim 1.

***Rejection under 35 USC 103***

***Claim 4 is allowable***

The Office has rejected claim 4 under 35 U.S.C. §103(a) as being unpatentable over Hayashi in view of U.S. Patent No. 5,751,261 (“Zavaracky”). Applicants respectfully traverse the rejection.

As explained above, the cited portions of Hayashi do not disclose or suggest each and every element of claim 1 from which claim 4 depends. Zavaracky does not disclose each of the elements of claim 1 that are not disclosed by Hayashi. For example, the cited portions of Zavaracky fails to disclose or suggest, “*a light-dependent device (90) located laterally outside of the area of the light emitting material (76) for detecting the brightness of the display element (2)*”, as recited in claim 1. Zavaracky is merely cited for teaching a display comprising a photodiode wherein the top contact terminal extends over the top of the stack and down one side of the stack and acts as a light shield to pixels on the one side of the photodiode.

Thus, the cited portions of Hayashi and Zavaracky, individually or in combination, do not disclose or suggest, “*a light-dependent device (90) located laterally outside of the area of the light emitting material (76) for detecting the brightness of the display element (2)*”, as recited in claim 1. Hence claim 1 is allowable. Claim 4 depends from independent Claim 1 and therefore contains the limitations of Claim 1 and is believed to be in condition for

allowance for at least the same reasons given for Claim 1 above. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of Claim 4 is respectfully requested.

***Claims 5-8, 15-18 and 21-22 are allowable***

The Office has rejected claims 5-8, 15-18 and 21-22 under 35 U.S.C. §103(a) as being unpatentable over Hayashi in view of U.S. Patent Application No. 2003/0047736 (“Forrest”). Applicants respectfully traverse the rejections.

As explained above, the cited portions of Hayashi do not disclose or suggest each and every element of claim 1 from which claims 5-8, 15-18 and 21-22 depend. Forrest does not disclose each of the elements of claim 1 that are not disclosed by Hayashi. For example, the cited portions of Forrest fails to disclose or suggest, “*a light-dependent device (90) located laterally outside of the area of the light emitting material (76) for detecting the brightness of the display element (2)*”, as recited in claim 1. Forrest is merely cited for teaching an OLED comprising an EL layer, two electrodes and a photodetector wherein the electrodes comprise a top substantially transparent electrode (80a) and a bottom substantially non-transparent, reflective electrode (74a).

Thus, the cited portions of Hayashi and Forrest, individually or in combination, do not disclose or suggest, “*a light-dependent device (90) located laterally outside of the area of the light emitting material (76) for detecting the brightness of the display element (2)*”, as recited in claim 1. Hence claim 1 is allowable. Claims 5-8, 15-18 and 21-22 depend from independent Claim 1 and therefore contains the limitations of Claim 1 and is believed to be in condition for allowance for at least the same reasons given for Claim 1 above. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of Claims 5-8, 15-18 and 21-22 is respectfully requested.

***Claims 9-11 and 19-20 are allowable***

The Office has rejected claims 9-11 and 19-20 under 35 U.S.C. §103(a) as being unpatentable over Hayashi in view of Forrest and further in view of U.S. Patent Application

No. 2001/0026125 (“Yamazaki”). Applicants respectfully traverse the rejections.

As explained above, the cited portions of Hayashi and Forrest do not disclose or suggest each and every element of claim 1 from which claims 9-11 and 19-20 depend. Yamazaki does not disclose each of the elements of claim 1 that are not disclosed by Hayashi and Forrest. For example, the cited portions of Yamazaki fails to disclose or suggest, “*a light-dependent device (90) located laterally outside of the area of the light emitting material (76) for detecting the brightness of the display element (2)*”, as recited in claim 1. Yamazaki is merely cited for teaching a plurality of printing dams (78) (105) and the light emitting material (76) (106) comprises a printable material.

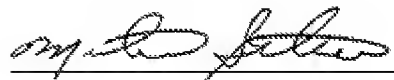
Thus, the cited portions of Hayashi, Forrest and Yamazaki, individually or in combination, do not disclose or suggest, “*a light-dependent device (90) located laterally outside of the area of the light emitting material (76) for detecting the brightness of the display element (2)*”, as recited in claim 1. Hence claim 1 is allowable. Claims 9-11 and 19-20 depend from independent Claim 1 and therefore contains the limitations of Claim 1 and is believed to be in condition for allowance for at least the same reasons given for Claim 1 above. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of Claims 9-11 and 19-20 is respectfully requested.

### **Conclusion**

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-23 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Mike Belk, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-945-6000.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael A. Scaturro", written over a horizontal line.

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